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ABSTRACT

The influences of the receipt of student financial assistance and the amount of assistance received on persistence in college over a four-year period were examined. The sample included all recipients of aid, all nonrecipients who applied for aid but were not eligible, and a representative sample of controls selected from the 1970-71 entering freshmen class at Washington State University. The results indicate that the receipt of student aid had small positive effects on persistence and that the denial of student aid in the freshman year to a group of applicants who were not eligible resulted in small negative effects on persistence. Contrary to expectation, when structural determinants of persistence were controlled, increasing amounts of financial assistance received per semester were negatively related to semesters attended. (Author/SW)

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Persistence in College:

The Impact of Financial Assistance to Students

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Abstract

This research examines the influences of the receipt of student financial assistance and the amount of assistance received on persistence in college over a four year period. The sample includes all recipients of aid, all nonrecipients who applied for aid but were not eligible, and a representative sample of controls selected from the 1970-71 entering freshman class at Washington State University. The results indicate that the receipt of student aid had small positive effects on persistence and that the denial of student aid in the freshman year to a group of applicants who were not eligible resulted in small negative effects on persistence. Contrary to our hypothesis, when structural determinants of persistence were controlled increasing amounts of financial assistance received per semester were negatively related to semesters attended.

Student Financial Aid and Persistence in College

Student financial aid programs have become an increasingly important component of the financing of higher education. The National Task Force on Student Aid Problems has noted that the total amount of financial assistance to students in postsecondary education has increased sixty-six times in the past twenty years. In addition, the National Commission on the Financing of Postsecondary Education noted that "student financial aid appears to be the fastest growing form of federal support for postsecondary education" (1973: 114). The total appropriation for student aid in the 1978 fiscal year was in excess of $3.7 billion (Carnegie Council on Policy Studies in Higher Education, 1979).

With an increasing proportion of public support for higher education being channeled into student financial aid, research on the effects of student aid is essential for effective decision-making in the financing of higher education.

In order to assess the effects of student aid, a brief overview of the policy goals of aid programs will be useful. While the goals of student aid programs have not always been well specified, there have been significant changes in the apparent goals during the development of aid programs. At

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their inception the primary purpose was manpower development in the area of teaching. During the War on Poverty era, goals changed to emphasize the reduction of financial barriers to college entrance for students from low income backgrounds as an avenue to upward social mobility. More recently, the concerns have shifted to access to postsecondary education as well as institutional choice. With this shift in concerns we also see an increasing interest in the effects of student aid on persistence in college (Astin, 1975; Fife, 1975). As access and choice have apparently been enhanced (Leslie and Fife, 1974), it has been noted that persistence or retention is another major goal of student aid policy. That is, once the student has entered the institution of his/her choice, will he/she be able to pursue the full course of higher education which he/she desires free of any financial constraints from his/her socioeconomic background?

Prior Research

The literature relevant to this research contains two major elements. These elements are the determinants of educational attainment and the effects of student aid on educational outcomes. An understanding of these issues is crucial to the study of the effects of student aid on retention.

The Determinants of Educational Attainment

The status attainment model is relevant to the formation and evaluation of social and educational policies which seek to equalize opportunities for upward social mobility. More specifically, the status attainment model specifies social background and intervening social psychological variables which influence status outcomes. Research on status attainment has consistently shown that certain background variables affect educational attainments. In turn, educational attainments have been shown to have important effects on occupational attainments and earnings. For example, people from lower

socioeconomic origins tend to be constrained by family background factors in their chances for upward social mobility. These findings are relevant to the present research since one of the goals of student financial assistance programs is the enhancement of educational attainments for economically disadvantaged students which can lead to upward social mobility.

While there is some divergence between different status attainment models (Haller & Portes, 1973), there exists a general consensus regarding the social background variables of causal importance for educational attainment. These factors are: father's education, mother's education, father's occupation, family income, ability, and number of siblings (Alexander & Eckland, 1975; Blau & Duncan, 1967; Duncan, Feathermar, & Duncan, 1972; Sewell, 1971; Sewell & Hauser, 1972, 1975). The more limited research on the determinants of educational attainment for college attenders indicates the importance of these same background variables with two exceptions. The effect of family income on years of schooling is not significant for college students, whereas academic performance in high school is an important determinant of further educational attainment (Alwin, 1974; Peng & Fetters, 1978; Sewell & Hauser, 1972). Alwin (1974) also found the student's perception of possible financial support from his/her parents and the student's motivation to obtain scholarship support to be significant influences in the process of attainment in higher education.

The Effects of Student Financial Assistance on Persistence in College

A recent study by Astin (1975) examines the effects of financial aid on the persistence of students in college using the self-reports of a large representative national sample. While this is the most detailed and comprehensive study to date concerning the effects of student financial aid on persistence, this research contains two major limitations. First, the study examines the impact of financial assistance only on persistence in the freshman

year of college. Second, the financial aid information used in this research is from self-reports of aid received during the student's entire undergraduate career.

Astin focuses on the effects of various types of aid on expected rates of retention. While the effects of type of aid were often found to vary by the proportion of support they comprise, and by the sex, socioeconomic background, and ethnic origin of the recipients, several general conclusions can be made from this research. On the whole, work-study was found to have the most consistent and pronounced positive impacts on persistence in college. Gift aid had small positive effects on persistence, and loan support was usually related to decreases in persistence.

Peng and Fetters (1978) have also addressed the relationship of student aid to retention. Using a two year follow-up survey of a sample of high school students, it was found that the receipt of a variety of grants, loans, and scholarships was not significantly related to persistence in college. This research is limited by the short-term nature of its longitudinal design.

Other research on the effects of student aid on persistence in college is often limited by unrepresentative samples and a lack of controls on other relevant explanatory variables. However, the general conclusions emerging from this research indicate that the receipt of student aid is positively related to persistence (Blanchfield, 1971, 1972; Crawford, 1966; Snyder & Klein, 1969); that scholarship or grant aid is more positively related to persistence than are loans (Blanchfield, 1971, 1972; Crawford, 1966); and that the larger the amount of assistance received by high achieving students, the less the chance of dropping out of college (Crawford, 1966).

In summary, while the literature on the effects of financial aid on persistence in college is inconclusive, the balance of evidence indicates

that the receipt of financial aid is related to increased persistence. Furthermore, while the effects of aid may vary with the student's background characteristics, work-study and grant support appear to enhance persistence, while loan support is negatively related to persistence.

While Astin (1975) has shed much light on the effects of different types of aid on persistence in the freshman year, our research will attempt to determine the broad categorical effects of aid receipt and the impact of amount of aid received on persistence over a four-year period. Our hypotheses are that the receipt of student aid enhances persistence when other relevant independent variables are controlled, that the denial of aid to a group which perceives a need but is not eligible for financial support decreases the persistence of this group when other relevant independent variables are controlled, and that increasing amounts of student aid will be positively related to persistence in college with other determinants of educational attainment controlled.

Methods

The Sample

The sample for this study was drawn from the entering freshman class of 1970-71 at Washington State University. The sample consists of three groups which are (1) all financial aid recipients in that entering class, (2) all of those who applied for financial aid at entrance into college but were not eligible, and (3) a control group selected on a probability basis from the remainder of the freshman class. The 1970-71 entering freshman class was chosen because this is the first year that adequate institutional data were available.

The original sample was comprised of 434 students who received aid, 229 students who applied for aid but did not receive it, and 387 students who

not apply for aid during the 1970-71 academic year. This stratified sample permits comparisons among the three groups.

Since we had little specific socioeconomic background information on the parents of those who did not apply for aid, and to a lesser extent for those who were rejected for aid, a mail questionnaire was sent to the parents of all students in the sample primarily to obtain more information on these variables. After two waves of mail questionnaires and a telephone follow-up, the overall response rate was 85 percent (or 92 percent of those for whom we had a valid address or telephone number).

A subsample of the original sample is used for the present research. Specifically, those students who attended only Washington State University are included in the analysis. This subsample is used since we have no accurate measure of the amount of financial aid received at other institutions by those students who attended college elsewhere. The students who attended only Washington State University were identified by a question on the follow-up questionnaire asking if the student had attended another college or university. When a response to this question was not available, supplemental information was obtained from Alumni Office records. The size of the resulting sample is 655.[1]

Persistence

The dependent variable in this study is the total number of semesters which the student attended Washington State University. Total number of semesters attended is measured by the number of semester grade point averages in the period 1970-1974. These data were retrieved from data sources maintained by the Registrar's Office.

Socioeconomic Status

The socioeconomic background variable is a composite measure comprised of indicators of socioeconomic standing which were obtained from the follow-up

questionnaire. Father's education and mother's education in 1970 are measured in years of schooling. Family income in 1970 is expressed in dollar amounts. Head of household's occupation is measured with the Siegel prestige score (Featherman, Sobel, & Dickens, 1975). Occupation of head of household was first scored as the father's, or male head of household occupation. If the father or a male head of household was not present, the mother's, or female head of household occupation was used.

Academic Background Variables

The academic background variables are: Washington Pre-College Test score, high school cumulative grade point average, cumulative grade point average at the end of the first year of college, and two composite measures of these high school and college academic background factors. Washington Pre-College Test score is an additive combination of the English, verbal, and quantitative composite scores of the Washington Pre-College Test. These data were obtained from the admission application, Counseling Center records, and the Washington Pre-College Testing Program. High school grade point average is a cumulative average of grades in high school. It was obtained from the Registrar's data system. HSACH is an additive composite of high school grade point average and Washington Pre-College Test score which is used in the second section of the analysis.

The college grade point average variable is the cumulative grade point average at the end of the first year (i.e., 1970-71) of this study. The grade point average is comprised of an average of the letter grades given after they have been converted to a scale where F = 0, D = 1.0, C = 2.0, B = 3.0, and A = 4.0. These data were retrieved from institutional sources. Since college grade point average was found to have a curvilinear relationship with semesters attended, a second-order variable of college grades was created. This second-order variable is labeled $CUMPGA^2$ and consists of the square of

Findings

Our findings are separated into several sections. Initially, we examine the means of the dependent and independent variables for each treatment group. It is expected that there will be significant differences on the independent variables between treatment groups due to the nature of the selection criteria for financial aid. It is necessary for the subsequent analysis to establish any differences of means on these variables. After the significance of the differences of the variable means is tested, we analyze the categorical effects of treatment group membership on number of semesters attended, while controlling for differences on the independent variables. This will be achieved with the use of the covariance adjustment. The next step of the analysis examines the effects of amount of financial aid received per semester on educational attainment. This analysis will be conducted for the recipient group only.

Since the covariance adjustment requires the assumption of linearity, the relationship between each independent variable and semesters attended was tested for linearity. All relationships were linear at the .05 level of significance except for that of cumulative grade point average at the end of the freshman year with semesters attained. The best approximation of this curvilinear relationship was found to be a second-degree variable. Thus, the second degree variable $CUMGPA^2$ was created and entered into the analysis. Given the strict requirements of the covariance adjustment for additivity, all relationships between independent variables and the dependent variable were checked for interaction. Using the .05 level of significance, no significant interactions were found.

In order to estimate the effects of the receipt of financial aid as a categorical variable on semesters attended, it is necessary to examine the

differences of means on relevant background variables. In Table 1 we see that there is no significant difference of treatment group means for semesters attended. That is, the mean number of semesters attended by treatment groups is not significantly different at the .05 level. The differences between treatment group means on the independent variables are significantly different, however. The group means for cumulative grade point average at the end of the freshman year (CUMGPA) differ at the .01 level. Nonrecipients have the highest CUMGPA of 2.87, recipients have the next highest CUMGPA of 2.67, and the controls have the lowest mean CUMGPA of 2.63. A similar pattern of relative rankings occurs with Washington Pre-College test scores (WPCT), high school grade point average (HSGPA), and the second-degree variable ($CUMGPA^2$). The level of significance is greater with respect to group differences of means on these later variables, however, with each significantly different at beyond the .001 level. Thus, while group means on persistence are not significantly different, there are significant differences on each of the academic background variables among the treatment groups.

Insert Table 1 about here

Significant differences exist in socioeconomic status also. These differences are in the expected direction, with controls having the highest socioeconomic status and recipients the lowest. Group differences in socioeconomic status are significant beyond the .001 level. Obviously, this is attributable to the selection criteria for student financial assistance.

In summary, while there are no significant group differences on the dependent variable of semesters attended, there are highly significant differences on the independent variables. Since the comparison groups are

Table 1

Variable Means by Treatment Group[a] (N = 655)

Variable	Means of Dependent and Independent Variables for Treatment Groups			
	Controls	Recipients	Nonrecipients	F Test[b]
SEMS	6.91	6.69	6.94	0.97 NS
SES	757.33	531.97	671.97	113.97****
WPCT	103.87	106.55	111.03	12.98****
HSPGA	3.09	3.22	3.38	21.31****
CUMGPA	2.63	2.67	2.87	4.47**
$CUMGPA^2$	7.50	7.81	8.91	7.17****

[a]The abbreviations used in this table refer to the following variables: SEMS, semesters completed at Washington State University; SES, socioeconomic status; WPCT, Washington Pre-College Test score; HSGPA, high school grade point average; CUMGPA, cumulative grade point average at the end of the freshman year; $CUMGPA^2$, second order variable of CUMGPA.

[b]Asterisks identify the level of significance associated with each F test: *, .05 level; **, .01 level; ***, .001 level, ****, beyond .001 level.

not equivalent on the relevant independent variables, a method of statistically adjusting these differences is necessary. The covariance adjustment will be used to statistically control these differences. This technique allows us to estimate the impact of treatment category on the dependent variable while controlling for the effects of pre-existing differences between comparison groups (Alwin & Sullivan, 1975; Kerlinger & Pedhazur, 1973).

The Effects of Treatment on Persistence in College

The unadjusted and adjusted means of semesters attended by treatment group are shown in Table 2. As indicated above, the nonrecipients and controls have nearly identical unadjusted means and the recipients have the lowest mean for semesters attended. Controlling for the independent variables by use of the covariance adjustment changes the ordering of the treatment groups on mean number of semesters attended. When the means are adjusted, the control group has the highest mean semesters achieved of 6.90, the recipients have the second highest adjusted mean number of semesters attended of 6.76, and the nonrecipients have the lowest mean semesters attended of 6.74.

Insert Table 2 about here

These findings are as expected. Since the control group has not been affected by the treatment, the absolute number of mean semesters remains essentially the same. The recipients' relative position has increased due to the effects of receiving financial aid. The relative position of the nonrecipients has decreased due to the denial of financial aid. Thus, receipt of student financial assistance appears to have a small positive impact on persistence in college, whereas the denial of student aid to

Table 2

Mean Number of Semesters Attended by Treatment Group (N = 655)

Treatment Group	Category Means and Deviations from the Grand Mean			
	Persistence Unadjusted		Persistence Adjusted	
Controls	6.91	+.03	6.90	+.02
Recipients	6.69	-.19	6.76	-.12
Nonrecipients	6.94	+.06	6.74	-.14
Grand Mean	6.88			

nonrecipients from higher socioeconomic backgrounds appears to have a small negative impact on the educational attainment of the group.

The deviations of the unadjusted and adjusted recipient and nonrecipient group means of semesters attended are also presented in Table 2. The original mean deviation of recipients from the grand mean is -.19, while the adjusted mean deviation is -.12. Thus, while the recipients remain lower than the grand mean of semesters attended, they more closely approach the grand mean after the other independent variables are statistically controlled.

The nonrecipients show a decrease in their position relative to the grand mean of semesters attended after the covariance adjustment. The original mean deviation for nonrecipients was +.06, while the adjusted mean deviation is -.14.

In summary, the covariance adjustment shows in rather broad categorical terms that the receipt of student financial assistance slightly enhanced the persistence of students who received it in their freshman year. On the other hand, the refusal of student aid in the freshman year to a group who perceived a financial need but were not eligible by governmental or institutional standards resulted in a slight decrease in semesters attended.

Amount of Financial Assistance and Retention

With the categorical effects of student aid on persistence having been examined, the remainder of the analysis will focus on an issue of interest within the recipient group. One of the treatment variables of interest in financial aid research is the amount of aid received by the student. The intuitively obvious method of examining the relationship between amount of aid received and persistence is to use the total amount of aid received during the student's college career as the treatment variable. This measure of amount of aid is problematic for our analysis, however, since there is an

inherent dependency between time in college and total amount of aid received. That is, the longer a recipient is in college, the more aid he/she may accumulate merely as a function of being in attendance.

To avoid this methodological problem, we will use the mean amount of aid received per semester as the independent variable in this analysis. This measure of amount of aid is free of the contamination inherent in total amount of aid. Amount of aid per semester (SEMFA) is also meaningful from a policy standpoint, since aid awards are based on the academic year but disbursed to the student each semester.

An initial analysis of the relationship between amount of aid per semester and persistence reveals a zero-order correlation of -.108 (see Table 3) and a slope coefficient of -.00066. This bivariate correlation indicates increasing amounts of aid per semester are related to decreases in persistence. The proportion of variance explained by this zero-order relationship is 1.2 percent. Thus, while aid per semester appears to be negatively related to semesters attended, it is not a significant factor in explaining persistence.

Insert Table 3 about here

To specify more accurately the relationship between amount of aid and semesters attended, a path analytic model will be used for this section of the analysis. As we see in Figure 1, the model hypothesizes two essentially unrelated components. These are the socioeconomic origin-aid component and

Table 3

Correlations, Means, and Standard Deviations in a Model of Persistence in College for Financial Aid Recipients (N = 267)

Variable	SEMS	SES	HASCH	GPA	SEMFA
SEMS	----				
SES	.071	----			
HSACH	.223	.089	----		
GPA	.527	.118	.230	----	
SEMFA	-.108	-.337	-.09.	-.159	----
Mean	6.69	531.97	428.92	5.01	520.69
S.D.	2.16	136.66	56.27	1.08	350.88

Note: Variables are: SEMS, semesters attended; SES, socioeconomic status; HSACH, high school ability-achievement; GPA, a weighted composite measure of grade point average at end of freshman year and the second-order variable $CUMGPA^2$; SEMFA, mean amount of financial aid per semester.

an academic background component. It is expected that the academic background component of the model will have the greatest impact on semesters attended and that the socioeconomic origins-aid component will have smaller positive effects on persistence.

Insert Figure 1 about here

As we can see in Figure 1, several of the independent variables in the model have been changed from the earlier section of the analysis. In order to obtain a meaningful model and to include the second-order derivative of college grade point average, we have created two composite measures. HSACH represents a composite of the two high school academic performance variables, Washington Pre-College Test score and cumulative high school grade point average. GPA is a weighted combination of cumulative grade point average at the end of the first year of college and the second-order variable $CUMGPA^2$. These two composite measures allow a more parsimonious evaluation of the impacts of aid per semester and the two components of the model on semesters attended.

Table 4 presents the path coefficients for our model of semesters attended. As expected, academic variables in the model have strong positive effects on persistence. HSACH and GPA have direct effects of .107 and .500, respectively, on semesters attended. The direct effects of HSACH on persistence are significant at the .01 level, and the effects of GPA on semesters attended are significant beyond the .001 level. In addition, the effects of HSACH on GPA are .230, which is significant at beyond the .001 level. The findings

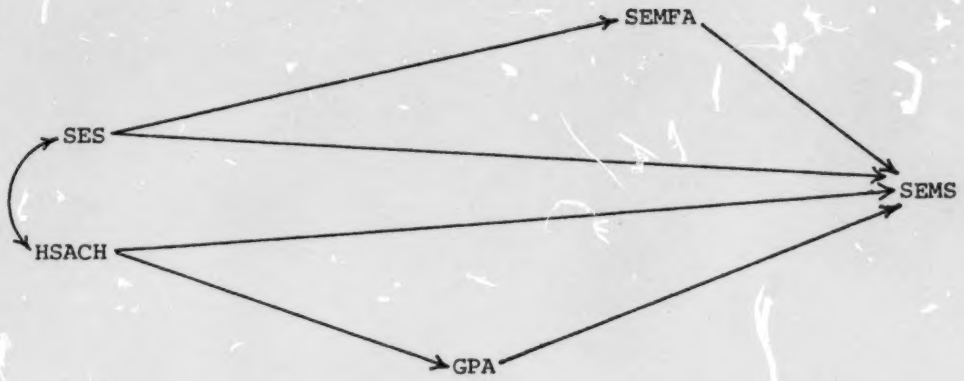

Figure 1. A Model of Persistence in College

presented in Table 5 show that these academic variables together explain 28.9 percent of the variance in educational attainment, with GPA explaining the largest proportion of variance at 23.9 percent. That is, the academic background component accounts for all of the variance in semesters attended which can be explained by the model.

Insert Table 4 about here

Insert Table 5 about here

Socioeconomic origin and amount of aid have small negative effects on persistence. As expected, the effects of SES on SEMFA are negative at -.337. This relationship is significant beyond the .001 level. That is, students from lower socioeconomic backgrounds are more likely to receive larger amounts of aid per semester. The direct effects of SES on SEMS are not in the expected direction. With a path coefficient of -.005, the direct effects of SES on persistence are negative and not significant. We had expected this relationship to be positive with the influences of socioeconomic status on persistence smaller than those of the academic variables.

Similarly, the effects of amount of financial aid received per semester on persistence are not in the expected direction. The direct effect of aid on semesters attended is -.021. That is, increasing amounts of financial aid per semester are related to decreases in semesters attended. This

Table 4

Standardized Regression Coefficients for a Model of Persistence in College (N = 267)

Variable	GPA	SEMFA	SEMS
HSACH	.230****		.107**
GPA			.500****
SES		-.337****	-.005
SEMFA			-.021

Note: Variables are: HSACH, high school ability-achievement; GPA, a weighted composite measure of grade point average at end of freshman year and the second-order variable $CUMGPA^2$; SES, socioeconomic status; SEMFA, mean amount of financial aid per semester; SEMS, semesters attended. Asterisks identify the level of significance: *, .05 level; **, .01 level; ***, .001 level; ****, beyond .001 level.

Table 5

Unstandardized Regression Coefficients and Proportions of Variance Explained in Semesters Attended (N = 267)

Variable	Unstandardized Regression Coefficient	Incremental r^2	Cumulative r^2
HSACH	.00409	.050	.050
GPA	.99560	.239	.289
SES	-.00007	.000	.289
SEMFA	-.00053	.000	.289

Note: Variables are: HSACH, high school ability-achievement; GPA, a weighted composite measure of grade point average at end of freshman year and the second-order variable $CUMGPA^2$; SES, socioeconomic status; SEMFA, mean amount of financial aid per semester.

relationship is not statistically significant. In Table 5 we see that amount of aid per semester explains none of the variation in semesters attended. Thus, while increasing amounts of aid per semester are negatively related to persistence, the relationship is not significant at conventional statistical levels, nor does amount of aid increase the proportion of the variance explained in semesters attended.

Conclusions

The broad categorical effects of receipt of student aid on persistence have been shown to be positive for students who received aid in their first year of college. That is, when the relevant independent variables are statistically controlled using the covariance adjustment technique, and persistence is then compared to the control group of nonapplicants, the mean number of semesters attended increases slightly relative to the grand mean. From these findings, we conclude that student financial assistance is a positive contributor to the persistence of recipients who first received it in their freshman year.

With regard to the nonrecipients of aid, we found that the denial of financial assistance to this group resulted in a decrease in persistence when independent variables were statistically controlled. This supports the hypothesis and indicates that the persistence of this group of students from relatively higher socioeconomic origins who perceived a need for financial assistance may have been enhanced by the receipt of aid.

Our findings indicate a negative but statistically insignificant effect of amount of aid received per semester on persistence. This finding was not as expected. We had hypothesized that increasing amounts of aid would improve persistence. This was based on the notion that as financial needs were increasingly met, the economic impetus for dropping out would

be progressively reduced. Both methodological and policy issues need to be considered when interpreting these findings. A methodological limitation of this research is the absence of a completely realistic measure of the amount of external financial support necessary for the student to complete his/her education. The student aid award is based on a documented need which is computed using standardized need assessments and the institutional student budgets. While these standardized techniques do provide a quantifiable estimation of the financial needs of the student, potentially influential subjective factors are often not considered. Parents vary greatly in their willingness to support their children while attending college. At the extremes, some affluent families may refuse to support a child in college while some low income families struggle to support the student. While the amount of aid received by the student is intended to meet his/her estimated financial needs, we have no measure of the true extent of his/her perceived financial needs. Thus, a more elegant approach to the problem of the effects of amount of aid received on persistence would take into account the degree to which the aid award met the student's perceived financial needs.

One possible explanation for this negative relationship between aid and persistence might be the increasing amount of loan included in the aid package as the amounts of awards increase. That is, as the amount of aid received by a student increases, the financial aid counselor must often increase the absolute amount of loan funds to meet this need with the limited funds available. The literature cited earlier consistently points to the negative impact of loans on persistence. It is possible that as the absolute amount of loan increases in the larger packages, persistence is hampered by the effects of loan.

In conclusion, this research finds that student financial aid is a positive contributor to the persistence of recipients, but that increasing the amount of aid per semester is negatively related to the number of semesters attended in a four-year time period. Student aid has become an important part of the system of higher education in this country. It should be continually evaluated and refined to deliver an effective and useful service.

Footnotes

[1]The proportions of the comparison groups which attended only Washington State University are as follows: controls, 62.3%; recipients, 61.5%; and nonrecipients, 64.2%.

[2]The following types of need-based aid are included in the calculation of the financial aid variable: National Direct Student Loan, Supplementary Equal Opportunity Grant, College Work Study Program, institutional tuition and fee waiver, university based and nonuniversity based scholarships, state and institutional grants, Bureau of Indian Affairs grants, Law Enforcement Educational Program, Veterinary Medicine Loan, Veterinary Medicine Scholarship, Pharmacy Loan, Pharmacy Scholarship, Nursing Loan, and Nursing Scholarship.

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Influence of Course Structure on Student
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* Teaching Methods
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Course instruction was manipulated to yield two different levels of structure in an exploratory analysis of the effects of course structure on student satisfaction in 166 introductory educational psychology students. Results suggest that student satisfaction for different degrees of course structure depends on personality attributes. Seven significant interactions were found, five of which suggest a possible pattern. Students who prefer moderate structure to high structure tend to score high on a number of Adjective Check List scales (Gough and Heilbrun, 1965) (i.e., dominance, change, number of favorable adjectives checked, affiliation, and intraception) which collectively identify individuals who are described as dependable, cooperative, resourceful, adaptable, and curious. Methodological and theoretical implications are discussed, and the need for further attribute-treatment interaction research on affective outcomes is suggested. (Author/SW)